

WHAT IS CLAIMED IS:

Sub B1

1. A semiconductor apparatus comprising:  
 a substrate main body having a mounting surface for mounting the semiconductor device;  
 5 a plurality of leads formed on the mounting surface; and  
 a plurality of conduction sections each defining at least part of an external terminal, wherein the conduction sections are electrically connected to the leads.

sub E1

2. The semiconductor apparatus of claim 1, wherein the substrate main body comprises a plurality of through-holes, internal surfaces of the through-holes are conductive and connected to respective leads, and predetermined ones of the internal surfaces define the conduction sections as the substrate main body is cut along corresponding ones of the through-holes.

15 3. The semiconductor apparatus of claim 1, wherein the substrate main body defines a central area and has one through-hole on the side of the central area for each of the leads, and the conduction sections are formed on a surface opposite of a mounting surface of the semiconductor device and are electrically connected to the leads through the through-holes.

20 4. The semiconductor apparatus of claim 1, wherein the substrate main body has a plurality of through-holes for each of the leads, and the conduction sections are formed on a surface opposite of the mounting surface of the device and are electrically connected to each corresponding one of the leads through a predetermined one of the through-holes.

25 5. The semiconductor apparatus of claim 1, wherein the plurality of leads radially extend from a peripheral area toward the central area of the substrate main body.

sub E2

6. An electronic apparatus having a circuit substrate mounted with the semiconductor apparatus according to claim 1.

Sub B2

30 7. A semiconductor apparatus comprising:  
 a semiconductor device having a plurality of electrodes;  
 a substrate main body;  
 a plurality of leads formed on the substrate main body; and

a plurality of conduction sections formed on the substrate main body, wherein the conduction sections are electrically connected to the leads, and one of the conduction sections defines an external terminal.

8. The semiconductor apparatus of claim 7, wherein the substrate main body comprises a plurality of through-holes, internal surfaces of the through-holes are conductive and connected to respective leads, and predetermined ones of the internal surfaces define the conduction sections as the substrate main body is cut along corresponding ones of the through-holes.

9. The semiconductor apparatus of claim 7, wherein the substrate main body defines a central area and has one through-hole on the side of the central area for each of the leads, and the conduction sections are formed on a surface opposite of a mounting surface of the semiconductor device and are electrically connected the leads through the through-holes.

10. The semiconductor apparatus of claim 7, wherein the substrate main body has a plurality of through-holes for each of the leads, and the conduction sections are formed on a surface opposite of the mounting surface of the device and are electrically connected to each corresponding one of the leads through a predetermined one of the through-holes.

11. The semiconductor apparatus of claim 7, wherein the plurality of leads radially extend from a peripheral area toward the central area of the substrate main body.

12. An electronic apparatus having a circuit substrate mounted with the semiconductor apparatus according to claim 7.

13. A method of manufacturing a semiconductor apparatus, comprising:  
a step of preparing a substrate including a plurality of leads and a plurality of conduction sections defining at least a part of external terminals, each of the leads being electrically connected to corresponding ones of the conduction sections;

a step of mounting a semiconductor device on the substrate;  
a step of electrically connecting electrodes of the semiconductor device to the leads; and

a step of cutting the substrate while leaving uncut at least one of the conduction sections connected to a corresponding lead.

14. The method of claim 13, wherein the semiconductor device includes a surface having the electrodes, the surface of the semiconductor device is attached to the substrate, and the electrodes of the semiconductor device are directly connected to the leads.

5 15. The method of claim 14, further comprising a step of providing conductive connection member at the electrodes of the semiconductor device, wherein the step of electrically connecting the electrodes and the leads includes a step of providing insulation adhesive members between the electrodes and the leads, a step of pushing the semiconductor device against the substrate and heating the semiconductor  
10 device and the substrate at a temperature higher than a melting temperature of the insulation adhesive member and lower than a melting temperature of the conductive connection member, and a step of melting the conductive connection member.

16. The method of claim 13, wherein the substrate is provided with a through-hole for each of the leads, the through-holes communicate with leads on the  
15 side of a central area of the substrate, and wherein the conduction sections are electrically connected to corresponding ones of the leads through the through-hole of the substrate and the substrate is cut after the step for electrically connecting the electrodes and the leads.

17. The method of claim 13, wherein the substrate is provided with a  
20 plurality of through-holes for each of the leads, the through-holes communicate with the leads, the conduction sections are electrically connected to corresponding ones of the leads through predetermined ones of the through-holes, and the substrate is cut after the step for electrically connecting the electrodes and the leads.

18. The method of claim 13, wherein the substrate is provided with a  
25 plurality of through-holes for each one of the leads, internal surfaces of the through-holes are made to be conductive and connected to the corresponding one of the leads, and the substrate is cut at locations that pass predetermined ones of the through-holes to define the conduction sections.

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